

REMARKS

Entry of the above amendments, and favorable reconsideration and allowance of the present application based on the following remarks are respectfully requested.

Claims 1-19, as amended, remain pending and claim 20 is added.

The last paragraph on page 7 is corrected to replace the inadvertent reference to phenyl acetate to phenyl acetylene as clearly described throughout the specification, including the amended paragraph itself.

Claim 1 is amended to insert the feature from claim 8, namely, that the hydrogenation is carried out at a temperature in the range of from 15 to 50 °C.

Claim 1 is also amended by deleting the hydrogen/phenyl acetylene molar ratio, which is now made the subject matter of claim 20.

Accordingly, no new matter and no new issues are raised by the amendments to claim 1 or the presentation of claim 20.

The rejection of claims 1-12, 14, 15 and 17-19, under 35 USC 103(a) as unpatentably obvious over Smoker (2,399,514) ('514) in view of Gattuso, US 4,734,540, ('540), is respectfully traversed for at least the following reasons.

As noted from the above amendments, claim 1 recites that the hydrogenation reaction is carried out at a temperature of from 15 to 50 °C. This feature of the present invention would not have been obvious in view of the disclosures of Smoker '514 alone or in combination with Gattuso '540, even if the combination were proper.

Regarding Smoker '514, there is no general disclosure of reaction temperatures. However, in the examples, the reaction temperature for the hydrogenation reaction is 150 °C.

Regarding Gattuso '540, there is a disclosure of a temperature range of from 25 to 350 °C, especially from 50 to 200 °C, whereas, in the examples, a temperature of 200 °C is used.

Therefore, one of ordinary skill in the art would not have been motivated by Gattuso '540 to modify the process of Smoker '514 to operate at a temperature in the range of from 15 to 50 °C.

Therefore, withdrawal of the rejection of claims 1-2, 14, 15 and 17-19, as unpatentably obvious over Smoker '514 in view of Gattuso '540, is requested.

Regarding the rejection of claims 13 and 16, under 35 USC 103(a), as being unpatentable over Smoker '514 and Gattuso '540, further in view of Barry (2,511,453), it is respectfully submitted that none of these claims would have been obvious based on this combination of references.

As with Smoker '514 and Gattuso '540, Barry discloses a temperature range for the hydrogenation reaction well above 50 °C. Specifically, at column 3, lines 18-20, it is disclosed that the hydrogenation reaction is carried out at a temperature in the range of from 125 to 350 °C.

Accordingly, the subject matters of claims 13 and 16 would not have been obvious. Indeed, the disclosure of Barry lends further support to the non-obviousness of claims 1-12, 14-15 and 17-19, as well as claim 20.

Accordingly, this ground of rejection should also be withdrawn.

In view of the foregoing, the claims are now believed to be in form for allowance, and such action is hereby solicited. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Attached is a marked-up version of the changes made to the specification and claims by the current amendment. The attached Appendix is captioned **“Version with markings to show changes made”**.

All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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Enclosure: Appendix

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Page 7, the paragraph beginning on line 25, is replaced with the following new paragraph:

--The process according to the invention is preferably carried out with a hydrogen : phenyl [~~acetate~~] acetylene molar ratio ≥ 1 . By preference this molar ratio is between 1 and 10. For commercial-scale applications this molar ratio is preferably between 1 and 4. The molar ratio is kept as low as possible in order to prevent conversion of styrene and phenyl acetylene into ethyl benzene.--

IN THE CLAIMS:

Please cancel, without prejudice or disclaimer, claim 8.

Please enter the following amended claims:

1. (Twice Amended) Process for the hydrogenation of phenyl acetylene in a styrene-containing medium with the aid of a catalyst and in the presence of hydrogen gas, wherein the catalyst is a sulfur-free nickel catalyst with a nickel content of 10-25 wt.%, supported on a carrier material and [**wherein the hydrogen gas/phenyl acetylene molar ratio is 1-10**] wherein the hydrogenation is carried out at a temperature between 15 and 50 °C.

Claim 20 is added.

End of Appendix